AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0002] in the published version of the above-captioned application with the following rewritten paragraph [0002]:

-- [0002] Vehicle sunroofs are well known in the art. One of the drawbacks with existing sunroofs is [[that]] the fact that they are typically composed of many parts, which adds cost and decreases reliability. It is desirable to provide a functionally robust sunroof, for example, to provide tilt and slide functions, whilst minimizing the component count. --

Please replace paragraph [0003] in the published version of the above-captioned application with the following rewritten paragraph [0003]:

-- [0003] According to one aspect of the invention an apparatus is provided for tilting and sliding a panel (such as a sunroof relative to a support surface (such as a vehicle roof having an opening therein selectively coverable by the panel. The apparatus includes: a frame, including a track, for mounting to the support surface; a lifter arm for mounting the panel thereon, wherein the lifter arm includes at least one foot disposed to slide along the track and the track includes a stop cooperating with the lifter arm to arrest its linear translation along the track; a cam follower disposed to slide along the track; and an actuator for linearly translating the cam follower. The lifter arm includes a cam profile and the cam follower is co-operable therewith to linearly translate the lifter arm until its linear motion is arrested and to pivotably tilt the lifter arm when its linear motion is arrested. --

Please replace paragraph [0028] in the published version of the above-captioned application with the following rewritten paragraph [0028]:

-- [0028] Each linear track 26 is terminated at its rear end by a bracket 36 which is fixed to the linear track 26 and the vehicle roof via bolts or screws at holes 38B formed in the bracket 36. Track 26 also includes a number of additional bolt holes 38A in a flange 40 for mounting the frame 24 to the vehicle roof. The front brace 30 also includes a number of bolt holes 38C for the same purpose. --

Please replace paragraph [0031] in the published version of the above-captioned application with the following rewritten paragraph [0031]:

-- [0031] As seen best in FIGS. 2 and 6, each flexible drive cable 62 is connected via a tubular coupling 64 to one of two power screws 68, each of which is disposed in the screw housing portion of track 26 and is free to rotate therein. More particularly, at one end of each screw 68 the tubular coupling 64 has a shaft 70 that is partially rotatably mounted in a cowl 72 provided in the front brace 30. The flexible drive cable 62 has a flat head fitted into this end of the shaft 70. The end portion of screw 68 is crimped into the other end of the shaft 70. A bushing 66 is fixedly mounted to the screw-housing portion of track 26 and the coupling 64 rotates in the bushing 66. At the other end of each screw 68, a bushing or bearing 76 is likewise affixed to screw-housing portion of track 26 and the screw 68 is mounted in a tubular coupling 74 which is journalled in the bushing 76. Each screw 68 is thus rotatably mounted in the screw housing portion of track 26 and constrained from axial movement therein. --

Please replace paragraph [0033] in the published version of the above-captioned application with the following rewritten paragraph [0033]:

-- [0033] The panel 22 is mounted (at mounting points 92) onto two preferably metallic lifter arms 90. Each lifter arm 90 includes at least one foot disposed in track 26. As seen best in FIGS. 2 and 11, each lifter arm 90 of the illustrated embodiment includes a front slider 102, comprising a plastic block 104 mounted onto a front foot 106, which is disposed to slide in the guide portion 50 of track 26. As seen best in FIGS. 2 and 10, each lifter arm [[96]] 90 also includes a lock element 108, comprising a plastic block 110 mounted onto a side foot 112, which is disposed to slide in the guide portion 50 of track 26. The lock element 108 provides both a sliding function and a locking function as described in greater detail below. In practice, the front slider 102 and lock elements 108 can be formed as an integral part of the lifter arm 90. --

Please replace paragraph [0034] in the published version of the above-captioned application with the following rewritten paragraph [0034]:

-- [0034] Each lifter arm 90 is engaged by one trolley 80 for the driving movement thereof. More particularly, as seen best in FIGS. 6 and 12, the lifter arm 90 includes a flange 94 which

functions as a cam surface. The cam surface of the illustrated embodiment is characterized by (i) a detent portion 96 having a pushing surface 98 and an abutment 100 (see FIG. 12), and (ii) an inclined portion 130, including a flat section 132 (see FIG. 12). As seen also in FIG. 9, the wedge 84 of trolley 80 engages the underside of flange 94 and the roller 88 of the trolley 80 engages the top side of the flange 94. The wedge 84 and roller 88 thus function as a cam follower in some respects, as discussed in greater detail below. --

Please replace paragraph [0035] in the published version of the above-captioned application with the following rewritten paragraph [0035]:

-- [0035] As seen best in the partial assembly view of FIG. 7, an arresting block 114 is fitted into each track 26. The block 114 includes a mounting portion 115 affixed to guide portion 50 of track 26 and includes a stop wall 116 disposed in the guide portion 50 which co-operates with lock element 108 of lifter arm [[96]] 90 as discussed in greater detail below. The arresting block 114 also includes an opposite wall 118 disposed above the guide portion 50 of track 26 which, in conjunction with wall 116, defines a locking channel 120, as discussed in greater detail below. --

Please replace paragraph [0036] in the published version of the above-captioned application with the following rewritten paragraph [0036]:

-- [0036] As seen best in FIGS. 2 and 6, each lifter arm 90 is also connected via a pivot or articulated linkage 122 to a rear slider 124 disposed to glide in the guide portion 50 of track 26. A rain gutter 126 is mounted to the rear sliders 124. The lifter arm 90 also has an integral tab 103 for engaging the wind deflector 34 as discussed in greater detail below. --

Please replace paragraph [0037] in the published version of the above-captioned application with the following rewritten paragraph [0037]:

-- [0037] The operation of the drive mechanism is schematically illustrated in FIGS. 12A to 12D. In the description that follows, the drive mechanism is discussed in relation to components disposed in one of the tracks 26, it being understood that the operation of the drive mechanism is identical in the other track. FIG. 12A shows the sunroof in a sliding mode of operation, wherein the lifter arm 90 is translated in unison with the trolley 80. More particularly, in this mode the

wedge 84 is positioned in the detent portion 96 of the lifter arm cam profile. When the trolley 80 is translated in the forward direction as a result of rotating the power screw 68 in the appropriate direction, the wedge 84 engages the pushing surface 98 of the cam profile thus conveying the translation force to the lifter arm 90. The lifter arm 90 thus slides along the track 26, and the panel 22, which is affixed to the lifter arm 90, thus also slides linearly. Note that the natural tendency of the trolley pivot arm 86 to rotate backwards as the lifter arm 90 is moved forward is checked by the abutment 100 in the cam profile that obstructs the rearward progression of the roller 88.. The abutment 100 also functions to prevent the lifter arm 90 from slipping when the trolley 80 is translated in the rearward direction. --

Please replace paragraph [0038] in the published version of the above-captioned application with the following rewritten paragraph [0038]:

-- [0038] The frame 24 is preferably installed at a slight angle to the roofline of the vehicle. Hence the panel 22, which is connected to the lifter arms 90 as described previously, translates along a plane slightly inclined to the vehicle roof. The geometry is preferably arranged to enable the panel 22 to pass under the vehicle roof when the lifter arm 90 and panel 22 slide rearwardly to open, as known in the art per se. --

Please replace paragraph [0040] in the published version of the above-captioned application with the following rewritten paragraph [0040]:

-- [0040] In the sliding mode of operation, the lifter arm lock element 108 travels freely in the guide portion 50 of track 26, i.e., the arresting block 114 does not stop the lifter arm lock element [[102]] 108, and the lifter arm [[96]] 90 does not tilt. The lifter arm 90 is capable of sliding forwardly in the track 26 until the lifter arm lock element 108 engages the stop wall 116 of the arresting block 114, as shown in FIG. 12B, thus inhibiting the forward translation of the lifter arm 90 and panel 22. Simultaneously, an end wall (or other stop) embedded in the track 26 (not explicitly shown) also stops the front slider 102 of the lifter arm 90. This position marks the dividing point between the slide and tilt modes of operation. --

Please replace paragraph [0041] in the published version of the above-captioned application with the following rewritten paragraph [0041]:

-- [0041] FIGS. 12C and 12D show the sunroof in the tilt mode of operation. While the lifter arm 90 is inhibited from forward translation, the trolley 80 can still continue to translate in the forward direction through actuation of the screw drive. As the trolley 80 moves forward, the wedge 84 leaves the detent portion 96 of the lifter arm 90, following the remainder of the cam surface. As a result of the cam profile, the wedge 84 urges the lifter arm 90 upwardly. The lifter arm 90, which is prohibited from forward movement, thus pivots about the front slider 102, which has a somewhat angular footprint so as to allow it to rock slightly despite being entrained in the track 26. As the lifter arm 90 pivots, the lifter arm lock element 108 rises through an opening 119 in the track 26 and into the locking channel 120 of the arresting block 114. At this point, the lifter arm [[96]] 90 is prevented from moving forwardly or rearwardly as a result of any external forces that may be applied to the sunroof. --

Please replace paragraph [0042] in the published version of the above-captioned application with the following rewritten paragraph [0042]:

-- [0042] In addition, as the lifter arm 90 pivots, its integral tab 103 engages and actuates the wind deflector 34, urging it to a non-active position. This increases the volume of air allowed to enter the passenger cabin. --

Please replace paragraph [0043] in the published version of the above-captioned application with the following rewritten paragraph [0043]:

-- [0043] As the sunroof is installed at a slight angle to the roofline of the vehicle, the flush position of the sunroof (i.e., wherein the panel 22 is flush with the vehicle roof) occurs at a predetermined tilt angle of the lifter arm 90, as seen in FIG. 12C. The notch or flat section 132 in the cam surface profile corresponds to the flush position. This flat section 132 is designed to inhibit angular motion of the panel 22 as the trolley 80 is translated along this region, thus providing some play in the linear position of the trolley 80 corresponding to the flush position of the panel 22. This decreases the accuracy required of any drive position sensing means. --

Please replace paragraph [0044] in the published version of the above-captioned application with the following rewritten paragraph [0044]:

-- [0044] The control electronics required to control the drive mechanism are relatively straightforward. A variety of options are available for sensing the linear position of the trolley 80 and/or the angular position of the lifter arms 90. For example, a relatively simple position sensing means can be provided by ohmic contact sensors or mechanically actuated switches installed in at least one track 26 to sense the linear position of the trolley 80 corresponding to the sunroof flush position (the "park" position) and the trolley end of travel positions (which define the maximum open position of the panel 22 and the maximum tilt position). Furthermore, a current sensor could also be installed for determining when the motor 152 stalls, which will occur at the trolley end of travel positions. Alternatively, more sophisticated position sensing means can be used such as magnetic or optical linear encoders where, for example, a sensing element is mounted to the trolley 80 and a detected element is mounted to the track 26. Alternatively still, an absolute position encoder can be mounted to the output shaft of motor 152, output shaft 168, or the reduction gear 160 to determine the linear position of the trolley 80 based on the angular position of the motor 152. A virtual absolute position encoder can also be utilized wherein the position of the trolley 80 can be surmised from sensing a gross or rough position of the trolley 80 provided, for example, by a magnet, combined with sensing the incremental position of the motor shaft. See, for example, U.S. Pat. No. 4,503,374 to Sakano, U.S. Pat. No. 4,535,277 to Kurakake, U.S. Pat. No. 4,876, 494 to Daggett et al, U.S. Pat. No. 5,030,900 to Kono et al, and JP Publication No. 61103757. --

Please replace paragraph [0046] in the published version of the above-captioned application with the following rewritten paragraph [0046]:

-- [0046] The illustrated embodiment has shown a wedge 84, pivot arm 86 and roller 88, mounted on a trolley 80, which engage the cam surface provided by flange 94 of the lifter arm 90. In one variant of the invention, seen in FIGS. 13A-13C, pivot arm 86' can be fixed (i.e., non-pivoting) and cam surface of flange 94' can have a varying thickness. The tilt angle of lifter arm 90' can thus be controlled by the profile of the flange 94' and its thickness in relation to the length of the pivot arm 86'. The detent portion of the flange 94' can also be eliminated by

increasing the thickness of the flange 94' to exceed the length of the pivot arm (not shown). Those skilled in the art will appreciate that a variety of other modifications may be made to the embodiments described herein without departing from the spirit of the invention. --